IN THE CLAIMS:

1. (Currently Amended) A fermentation composition for treatment of aquatic environments, the composition comprising:

an activated organic matrix comprising barley straw, beneficial saprophytic bacteria composed of one or more strains selected from the group consisting of Bacillus subtilis, Bacillus licheniformis, Bacillus amyloliquefaciens, Paenibacillus polymyxa, Bacillus megaterium, Bacillus psychrophilus, Bacillus globiformis, Bacillus psychrosaccharolyticus, Bacillus benzovorans, Bacillus vallismortis, Bacillus mojavensis, Bacillus stearothermophilus, and Bacillus acidopullyticus, associated beneficial hydrolytic enzymes, and soluble ~~humates and active humic~~ catabolic breakdown products of the barley straw ~~compounds~~, wherein ~~the activated organic matrix is comprised of one or more products selected from the group consisting barley straw, rye straw, wheat straw, ground barley and whole barley grain~~ the composition has been comminuted into a dry granulated fermentation product.

2. (Previously Amended) The composition according to Claim 1 wherein the activated organic matrix further comprises wheat bran.

3. (Currently Canceled) The composition according to Claim 1 wherein said beneficial saprophytic bacteria are composed of one or more strains selected from the group consisting of Bacillus subtilis, Bacillus licheniformis, Bacillus amyloliquefaciens, Paenibacillus polymyxa, Bacillus megaterium, Bacillus psychrophilus, Bacillus globiformis, Bacillus psychrosaccharolyticus, Bacillus benzovorans, Bacillus vallismortis, Bacillus mojavensis, Bacillus stearothermophilus, and Bacilus acidopullyticus.

4. (Original) The composition according to Claim 1 wherein the organic matrix is activated by fermentation in the presence of beneficial saprophytic bacteria.

5. (Original) The composition according to Claim 1 wherein the hydrolytic enzymes are produced during the fermentation of the organic matrix by the beneficial saprophytic bacteria.

6. (Currently Canceled) The composition according to Claim 1 wherein the soluble humatic compounds are produced by the fermentation of the organic matrix by the beneficial saprophytic bacteria.

7. (Currently Canceled) The composition according to Claim 3 wherein the organic matrix further comprises barley straw.

8. (Currently Amended) The composition according to Claim 1 wherein the organic matrix is comprised of from 25% to 97.9% ~~10% to 75%~~ other straw or grain products.

9. (Original) The composition according to Claim 1 wherein the organic matrix is comprised of from 10% to 98% barley and/or grain.

10. (Currently Canceled) The composition according to Claim 1 wherein the composition is a dry granulated fermentation product.

11. (Withdrawn) A method for producing a dried granular fermentation composition of Claim 1 comprising the following steps:

(a) providing an activated organic matrix which comprises one or more products selected from the group consisting barley straw, rye straw, wheat straw, ground barley and whole-grain barley grain,

(b) adding water in an amount of 35% to 60% by weight based on the weight of the total composition to said organic matrix,

(c) inoculating the organic matrix with saprophytic bacteria;

(d) incubating the organic matrix until bacterial growth occurs; and

(e) drying the organic matrix to stabilize the saprophytic bacteria.

12. (Withdrawn) A method as set forth in Claim 11 including the additional step of chopping said organic matrix into pieces from about .2 cm to about 5 cm in length prior to said addition of water.

13. (Currently Canceled) A method as set forth in Claim 11 including the additional steps of adding additional nutrients to said organic matrix to accelerate growth of bacteria and adding buffering salts to the organic matrix to control pH for optimum bacterial growth prior to the inoculating step.

14. (Currently Canceled) A method as set forth in Claim 11 including the additional step of grinding the organic matrix after said drying to create a dried granular fermentation product.

15. (Currently Canceled) A method for treating an aquatic environment comprising the steps of:

adding a fermentation composition of Claim 1 to the aquatic environment in an amount sufficient to reduce growth of algae and/or increase the degree of clarification in the aquatic environment.

16. (Currently Canceled) A method as set forth in Claim 11 including the additional step of providing wheat bran to said activated organic matrix.